Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-73. (canceled)

74. (New) An anti-CCR5 antibody fragment comprising an antibody fragment selected from the group consisting of:

(a) a light chain, which light chain comprises the expression product of a plasmid designated pVK:HuPRO140-VK (ATCC Deposit Designation PTA-4097);

(b) a heavy chain, which heavy chain comprises the expression product of either a plasmid designated pVg4:HuPRO140 HG2-VH (ATCC Deposit Designation PTA-4098) or a plasmid designated pVg4:HuPRO140 (mut B+D+I)-VH (ATCC Deposit Designation PTA-4099);

(c) a Fab fragment which comprises (i) two light chains, each light chain comprising the expression product of a plasmid designated pVK:HuPRO140-VK (ATCC Deposit Designation PTA-4097), and (ii) two heavy chains, each heavy chain comprising the expression product of either a plasmid designated pVg4:HuPRO140 HG2-VH (ATCC Deposit Designation PTA-4098) or a plasmid designated pVg4:HuPRO140 (mut B+D+I)-VH (ATCC Deposit Designation PTA-4099); and

(d) a $F(ab')_2$ fragment which comprises (i) two light chains, each light chain comprising the expression product of a plasmid designated pVK:HuPRO140-VK (ATCC Deposit Designation PTA-4097), and (ii) two heavy chains, each heavy chain comprising the expression product of either a plasmid designated pVg4:HuPRO140 HG2-VH (ATCC Deposit Designation PTA-4098) or a plasmid designated pVg4:HuPRO140 (mut B+D+I)-VH (ATCC Deposit Designation PTA-4099);

and which antibody fragment binds to CCR5 on the surface of a human cell.

75. (New) The anti-CCR5 antibody fragment of claim 74, wherein the antibody fragment is the light chain expressed by the plasmid designated pVK:HuPRO140-VK (ATCC Deposit Designation PTA-4097).

76. (New) The anti-CCR5 antibody fragment of claim 74, wherein the antibody fragment is the heavy chain expressed by the plasmid designated pVg4:HuPRO140 HG2-VH (ATCC Deposit Designation PTA-4098).

77. (New) The anti-CCR5 antibody of claim 74, wherein the antibody fragment is the heavy chain expressed by the plasmid designated pVg4:HuPRO140 (mut B+D+I)-VH (ATCC Deposit Designation PTA-4099).

78. (New) The anti-CCR5 antibody fragment of claim 74, wherein the antibody fragment is the Fab fragment of the anti-CCR5 antibody which comprises (i) two light chains, each light chain comprising the expression product of a plasmid designated pVK:HuPRO140-VK (ATCC Deposit Designation PTA-4097), and (ii) two heavy chains, each heavy chain comprising the expression product of either a plasmid designated pVg4:HuPRO140 HG2-VH (ATCC Deposit Designation PTA-4098) or a plasmid designated pVg4:HuPRO140 (mut B+D+I)-VH (ATCC Deposit Designation PTA-4099).

79. (New) The anti-CCR5 antibody fragment of claim 74, wherein the antibody fragment is the $F(ab')_2$ fragment of the anti-CCR5 antibody which comprises (i) two light chains, each light chain comprising the expression product of a plasmid designated pVK:HuPRO140-VK (ATCC Deposit Designation PTA-4097), and (ii) two heavy chains, each heavy chain comprising the expression product of either a plasmid designated pVg4:HuPRO140 HG2-VH (ATCC Deposit Designation PTA-4098) or a plasmid designated pVg4:HuPRO140 (mut B+D+I)-VH (ATCC Deposit Designation PTA-4099).

80. (New) An anti-CCR5 antibody fragment comprising (i) a light chain which comprises consecutive amino acids having the sequence set forth in SEQ ID NO:6; or (ii) a heavy chain which comprises consecutive amino acids having the sequence set forth in SEQ ID NO:9 or SEQ ID NO:12.

81. (New) A composition comprising the anti-CCR5 antibody fragment of claim 74 or claim 80 and a carrier, a diluent or an excipient.

82. (New) The composition of claim 81, wherein the anti-CCR5 antibody fragment has attached thereto a material selected from the group consisting of a radioisotope, a toxin, polyethylene glycol, a cytotoxic agent and a detectable label.

83. (New) A method of inhibiting HIV-1 infection of a CD4+ cell which comprises contacting the CD4+ cell with the anti-CCR5 antibody fragment of claim 74 or claim 80, in an amount and under conditions such that fusion of HIV-1 or an HIV-1 infected cell to the CD4+ cell is inhibited, thereby inhibiting HIV-1 infection of the CD4+ cell.

84. (New) The method of claim 83, which further comprises labeling the anti-CCR5 antibody fragment with a detectable marker.

85. (New) The method of claim 84, wherein the detectable marker is a radioactive or a fluorescent marker.

86. (New) The method of claim 83, wherein the CD4+ cell expresses CCR5.

87. (New) A method of treating a subject afflicted with HIV-1 which comprises administering to the subject an effective HIV-1 treating dosage amount of the composition of claim 81, under conditions effective to treat said HIV-1-afflicted subject.

88. (New) The method of claim 87, wherein the composition is administered to the subject by a method selected from the group consisting of intravenous, intramuscular and subcutaneous means.

89. (New) The method of claim 87, wherein the composition is administered continuously to said subject or at predetermined periodic intervals.

90. (New) The method of claim 87, wherein the dosage of said composition ranges from about 0.1 to about 100,000 μg/kg body weight of said subject.

91. (New) The method of claim 87, wherein the dosage of said composition does not inhibit an endogenous chemokine activity on CCR5 in said subject.

92. (New) A method of preventing a subject from contracting an HIV-1 infection which comprises administering to the subject an effective HIV-1 infection-preventing dosage amount of the composition of claim 81, under conditions effective to prevent said HIV-1 infection in said subject.

93. (New) The method of claim 92, wherein the anti-CCR5 antibody fragment is administered to the subject by a method selected from the group consisting of intravenous, intramuscular and subcutaneous means.

94. (New) The method of claim 92, wherein the anti-CCR5 antibody fragment is administered continuously to said subject or at predetermined periodic intervals.

95. (New) The method of claim 92, wherein the dosage of said anti-CCR5 antibody fragment ranges from about 0.1 to about 100,000 μg/kg body weight of said subject.

96. (New) The method of claim 92, wherein the dosage of said anti-CCR5 antibody fragment does not inhibit an endogenous chemokine activity on CCR5 in said subject.